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THE GENESEE FARMER.

SATURDAY, JANUARY 26, 1839.

SILK CULTURE.--What have we done?

Feeling from the commencement of the silk enterprise a deep interest in its advancement, and believing that in its establishment on a firm basis a vast impulse would be given to the productive industry of the country, we have watched its progress with an anxiety and attention proportioned to the national as well as individual interest we consider involved in the issue. If we succeed in making the production of silk an object of general culture, we can give to the middle and northern states a new staple, of more value as an article of export than any single item of agricultural produce in the United States, cotton alone excepted; and what is more, the balance of trade in silk, which is now some twenty millions against us, may be turned to that amount in our favor.

The introduction of any new branch of industry, affecting so many interests, and depending on so many causes, cannot reasonably be expected to take place in any time short of a succession of years; the trees are to be introduced, and by cultivation the kind best adapted for our climate ascertained; worms are to be procured, and the varieties, and their respective values for cocoons and the silk, tested; the art of manufacturing is to be acquired, and buildings and machinery provided for the purpose. Man has no instinct to guide him in these things, and even Yankee ingenuity and perseverance cannot perform miracles; like the rest of mankind they too must learn. Yet because we do not find our sisters and wives already clothed in domestic silks, some have become discouraged, and are beginning to predict a failure. On the contrary we feel more and more confident of eventual success, and believe facts warrant us in asserting that silk is destined to become the most important staple of the north; and our opinion is principally founded on the developments and experiments of the past year.

We have never expected much from incorporated companies, or magnificent associations, in the production of silk. We should as soon expect such a course would be successful in the raising of wheat; and even should it succeed in that way, it would be but of doubtful utility. In the production of silk we think we see something that will benefit the many—find healthful and pleasurable employment for the young—give a certain source of profit to the industrious female—and avoid the mischief that results from monopolizing associations, or crowded manufactories. We hope to see a patch of mulberry trees as indispensable a part of farming cultivation, as the acre devoted to potatoes; and believe that the best use to which parlors in general can be devoted, is to convert them into cocooneries. But watching the insect transformations the silk worm undergoes, a child will, in a single season, learn more of the science of entomology, and in most cases acquire more interest in the study of natural objects, than is commonly the result of years of forced study in the school. In the home and family of the farmer, then, we look for the benefits, and progress of the silk culture.

The first step in the progress of making silk in any country, is to provide a supply of mulberry trees; for though other articles of food for the worms may make silk, there is none that can be relied on except the mulberry. It was for a time doubtful whether we should be able to furnish a supply of the requisite food, and with sufficient certainty, to justify the entering upon the business as a regular source of employment. The common white mulberry it is true would grow in most places, but in many was liable to have its shoots severely injured by the frosts of winter, if not entirely destroyed. Besides, the labor of gathering leaves from trees of the size of the white mulberry was great, and of a kind that children or females could not so readily accomplish. In Italy and parts of France in which the white mulberry is principally relied upon, the expense of gathering the leaves is the most important item in the culture of silk, and the habits of that country do not present the same obstacles that might in practice be found to exist here.

The experience of 1838 has, however, amply proved that there is no necessity of relying on the white mulberry for foliage, and that the climbing of trees for the gathering of the leaves may be entirely dispensed with. In the Morus multicaulis, and perhaps in some of the other lately introduced varieties, such as the Alpine, or the Brussa, we have a substitute for the white mulberry, apparently superior in every respect; grown with the greatest certainty; preserved through our winters with little care or expense; furnishing a large quantity of superior leaves for the worms; as easily gathered as any work can possibly be performed; and making silk of the first weight and quality. The multicaulis preserved through the winter, and planted in the spring; or cut off close to the surface in the fall, (which will probably be the best method when the present demand for cuttings has ceased,) will throw out shoots producing abundance of foliage, before the proper season for the hatching of the eggs arrives; or the hatching can be delayed at the pleasure of the cultivator, should it be feared the foliage is not sufficiently advanced to secure the requisite supply of food. In no instance, however, in which the worm has been fed from the foliage produced in this way, from the springing shoots, during the past year, has a single case occured within our knowledge in which the least difficulty has arisen from want of foliage. On the contrary almost every experimenter has found that a much greater number might have been fed, and that without any injury to the trees. In a number of instances that have been recorded in the journals of the day, or which have come under our own notice, it was plain that the trees suffered no injury from the defoliation, care being taken not to disturb the latest leaves or the buds, and that the limits of feeding were in no case, nearly reached. In the experiment of Mr. McLean of Freehold, New Jersey, ten thousand worms were fed on the sixteenth of an acre of the multicaulis, and he says, in his report to the New York Institute, that he had foliage sufficient, in the judgment of all competent observers who saw his trees to have produced double the quantity of cocoons from the same ground, if he could have procured the eggs. Of the largest of these cocoons (the 'mammoth white') "192 produced a pound, after the floss was off."

The experiments of the year 1838 have also demonstrated that our climate is most favorable to the health of the worm; and when we remember that the value and excellence of the silk fibre is greatly depending on this cause, its importance will be better appreciated. In the thousands of instances in which the silk worm was fed to a greater or less extent in our country last year, not a single case of diease among them has come to our knowledge. That our fine dry summers, combined with the uniform elevated temperature, would prove favorable to the worm was confidently predicted by that able observer, Gen. Tallmadge, from what he saw in Europe; where a hot dry summer is uniformly favorable to the production of silk, and one of a wet kind, or a low temperature, the reverse, the latter causing diseases which sometimes depopulate a whole cocoonery. A low temperature is also injurious by rendering the worm less active in feeding, retarding its transformations, and by its effect on the health of the worm giving silk of an inferior quality. The experiments of Mr. Danforth, Mr. McLean, and a multitude of others, show that the period of feeding in a high and uniform temperature like that of the generality of our summers, is much hastened over that where an unfavorable temperature exists.

Some writers on the silk culture have expressed regrets that so much more attention should be paid to the propagation of the mulberry than to the feeding of the worms, or the making of silk. That the mulberry mania has reached a state which will probably result in a loss to some, cannot well be doubted; but that the excitement on the subject of the multicaulis, by spreading a knowledge of its actual value, as well as the tree itself, far and wide in our country, will be of service to the main object, and extend the production of silk, is we think equally clear. The growth of silk in any considerable quantity in the northern states from the common mulberry, we have, for the reasons above stated, long considered doubtful, and as the multicaulis promises to supply the great desideratum of a plentiful foliage with certain growth, we hail its extensive spread as indicative of assured success to the manufacture. That the price of trees must eventually conform to the demand for the foliage none can doubt; and as the profit from the sale of the trees, (such is their rapid increase,) over that from their use for silk, cannot possibly long continue, we think we are justified in the belief that the production of silk is destined to a rapid advance among us.

One of the best papers which has appeared on the subject of the silk business, is the one from the pen of Mr Pleasants of Virginia, and copied from the Farmers' Register, into the last volume of the Gen. Farmer. The opinions expressed in that paper were mostly the result of personal observation, in an extensive tour through the sections of New England and the middle states, in which the business had excited the most attention; and though he was somewhat disappointed at finding the large associations had done so little, he found abundance to convince him the good work must and would go on.

In reply to the question, what have we done in the establishment of the silk business in this country? it may fairly be answered:—

First: We have proved that the multicaulis may be grown in this country, by producing in the space of some half a dozen years more of the true plant than can be found in all Europe.

Second: We have proved that the foliage from shoots of the same years growth will furnish an abundant supply of food; and that one acre of such shoots will feed half a million of worms.

Third: We have proved that the multicaulis can be propagated and preserved through our winters with perfect safety; and that at an expense per acre not exceeding that of cultivating the potatoe.

Fourthly; We have proved that our climate is most admirably adapted to the feeding and health of the silk worm, and that the silk produced, whether from the multicaulis, or the common mulberry, is of the best quality.

That these are facts, none acquainted with the subject will doubt; and if admitted, who can hesitate in admitting also that the silk business can and will be

successfully established in this country. We believe it will be, and that it will be both pleasant and profitable. Let the farmer then engage in the business; not by ruining himself in the mulberry speculation, but by procuring a few trees which he can rapidly multiply; by feeding a few worms to make himself familiar with their habits, and the methods of feeding; and then when his trees are sufficiently numerous, and regular markets for cocoons are established, he will find that his women and children in a few weeks, without materially interfering with domestic duties or education, will produce from his acre or even half an acre of multicaulis, as much clear profit, as he sometimes counts up from a year's labor, and the wear of his farm. Remember if ever the United States is to be a silk growing country, the labor must be performed, and the profits shared by the farmer in his family. The production of the silk belongs to him; the manufacture must be completed elsewhere.

STATE AGRICULTURAL SOCIETY.

The annual meeting of the New York State Agricultural Society will be held at the Capitol in Albany on the first Tuesday of February next, and we hope will be promptly and fully attended. The advantages of such an institution to the public might be made very great if the friends of agriculture generally, and deputations from town or county societies, would be present. The meetings of the Highland, or Scotch Society, and of the British Agricultural Association, call together a multitude of the most celebrated farmers, grain, cattle, and sheep growers, as well as great land owners from all parts of the Kingdom, and the amount of information thus accumulated and distributed, is immense. It is true that the exhibitions of agricultural products, cattle, &c. do much towards giving the celebrity these meetings enjoy; but the papers read, and the speeches made, and the facts communicated form no inconsiderable part of the inducements to attendance on these meetings.

Whether all has been realized from our State Society that might reasonably have been anticipated from its organization, we are not prepared to say. If not, the fault we think cannot justly be charged upon the worthy men who have had the chief management of its affairs, but to the indifference with which the public generally view the existence and action of bodies at so great a distance from them, and with which personally they have no connection. The organization by a state law, such in substance as was reported by Mr. Allen at the last session, of a strong corps of county societies, of which the state society should be considered the natural head or central point, would undoubtedly be the means of conferring upon that body at once the efficiency so much to be desired by every true friend of agriculture, as the attendance of a delegation from each society would be the natural and proper result of such an organization. We are indeed more and more convinced that without the formation and co-operation of town or county societies, the state association must continue to be comparatively feeble and inefficient. We hope to see these obstructions to its progress speedily removed by the passage of a law, which by the liberality of its provisions shall rouse the dormant energies of the farmer, and conduce to the rapid improvement and elevated standing of that class to which, more than to any other, the elements of prosperity and greatness are owing.

WHEAT WORM.

Our correspondent L. B. L. (vol. 8 page 412) from the difference given in some of the eastern descriptions of the worm that has done so much injury to the wheat in the valley of the Hudson and in New England, and in the appearance of the worm in Western New York, is inclined to hope that the evil is of a different nature, and will be but transitory. We most fervently hope also that such will be the case, and though present appearances indicate that it will spread over the whole wheat growing sections of the United States, still we see no reason for that despondency which some have felt on the subject, as though the growing of wheat would be abandoned among us from necessity. The same worm which excites so much alarm among us has been known in England for years, and though it has sometimes produced serious injury to the wheat (it did in 1838) there has been no change in the quantity sown in consequence of the pest. So we think it will be here. The worm may linger among us for a time, but like the Hessian fly, we apprehend, except in particular years favorable to its propagation, it will excite little notice, or do little injury.

As to the supposed difference in the worm existing here and at the east, spoken of by our correspondent, it is plain, notwithstanding some confusion in the description given by different writers, that at least two kinds of worms infest wheat, one of which may with propriety be termed a weevil, while the common Wheat Worm, cannot with any propriety be so denominated. The grub or maggot called the weevil, which perforates the kernel with a smooth round opening, and lives within it, like the larvæ of the pea or clover bug, we saw in wheat fresh from the field nearly twenty years since in this district; and it is this, which, in some instances, as we know, has done much damage at the East. But it is also undeniable that the worm described by our corrrespondent both as to length, movement, color, mode of living, and propagation, exists in the east, and is the one to which the great destruction of grain there is owing. This our correspondent will at once perceive if he will examine the reports made by the Maine Agricultural Societies, or the statements given in the last volumes of the New England Farmer; or better still by personal observation, should an opportunity offer.

That the worm can do much injury to wheat after the berry becomes hard and ripe we do not imagine, and unless found in great numbers, the depredation would scarcely be perceived; besides the greater part of the worms must necessarily perish immediately after being placed in the mow; but that the worm does actually feed on the ripened grain we have not now the shadow of a doubt. We had an opportunity the past season of examining the tailings of a crop of spring wheat which was seriously injured by the worm, and we found abundance of kernels that bore the most conclusive evidence of having been fed upon after ripening. There is no mistaking a kernel of grain fed upon before or after ripening. In the first place it is shrunk in exact proportion to the quantity of milk extracted; in the last, the part remaining is as plump, as if the whole had remained entire. As yet, however, farmers in the Wesern district have experienced little to alarm them; still they should be on the alert, and by noticing any new insects or appearances on their wheat, assist in removing the cause, or discovering a remedy.

WASH FOR SEED WHEAT.

M. de Dombale, the celebrated French chemist and agriculturist, after a long series of experiments in ascertaining the best wash for seed wheat for preventing smut, has published in a Paris journal the following as the result.

17 1-2 or 18 lbs. of sulphate of soda, (glauber salts) are to be dissolved in 22 imperial gallons of pure water. In order to be sure of its being thoroughly dissolved, the salts may be put in the water the day before it is wanted. The wheat is piled up on the floor, and with a fine rose headed watering pot, is thoroughly wetted by being stirred while the water is slowly sprinkled over it. When well moistened, lime in powder, 4 1-2 lbs. to 22 gallons of the wet wheat, is mixed gradually with the grain, the latter being turned over in every direction that the whole may be intimately combined. The lime should be fresh slacked, as on its causticity much of the efficacy of the preparation will depend. M. de D. states that where it is necessary, wheat thus prepared may be kept several days without injury, if occasionally stirred in the heap. Where it is necessary to keep lime for some time, it may be preserved in a caustic state, by covering the cask or vessel containing it, with a cloth, on which is to be carefully spread an inch of dry sand or ashes. The quantities of sulphate and of lime stated are the lowest that can be relied upon, but the quantity of either may be increased without danger. We imagine that a much more expeditious and equally effective way, would be to plunge the wheat into the liquor, and then draining and liming it as is now practiced by many farmers with brine or ley.

VERMONT OPINIONS.

At the Cattle Show held at Caledonia, Vermont, on the 27th of September, Mr. Henry Stevens delivered an address, which, varying from the usual routine of agricultural addresses, enters upon topics not less vitally important to the prosperity of an agricultural people than those which relate solely to the production of crops or the amelioration of the soil. The subject selected by Mr. Stevens is the woolen trade of the country and that state, the quality grown, and the balance of trade in these matters. We have room only for a summary of the writer's facts and reasonings.

It appears from the report of the Secretary of the Treasury, that during the year ending on the 30th of September, 1836, the wool and woolen goods imported into the United States amounted to $24,579,835. To this sum Mr. Stevens adds sixty-five per cent for duties, insurance, freight, tonnage, importers and retailer's profits, which would amount to $15,976,925; making a total cost to the inhabitants of the country of $40,556,681, for a single year. At fifteen millions of inhabitants, the sum for each individual in the country would be 270 cents; and as there are 300,000 people in Vermont, Mr. Stevens arrives at the legitimate conclusion that that state pays to foreigners for woolens about 810,000 dollars. This probably is not overrated, since it is clear the inhabitants of the northern states must of necessity use a greater proportion of woolens than those of the south.

Mr. Stevens then goes on to show how this debt *can* be paid, or rather how it *must* be paid. By the general list of the state for 1837, it appears that Vermont had 1,166,234 sheep, while in 1836 there were but one million. Allowing each sheep to produce two and a half pounds, there would be 2,915,585 pounds of wool, which at 33 cents per pound, would amount to $962,143, which would pay the foreign debt, and leave 132,143 dollars to divide among the wool-growers. As Mr. Stevens rightly supposes, such a result would be anything but satisfactory. He proposes secondly that the Vermonters should let these foreigners have one fifth of all the neat cattle of two years old and older. The general list of 1837 shows that of such cattle there were in the state 219,021, and that admitting one-fifth of these were beef and fit for market, the number that could be sold at $20 a head at home would come to $876,080, paying the debt and leaving about 60,000 dollars for division among the cattle growers. This too he supposes would be a hard case, and proposes to turn out all the horses, entered in the state lists as worth less than $25, amounting to 20,000 in number, and of course at $20 a piece, paying off about $400,000 of the woolen debt. (If the Vermonters, or the New Yorkers, *could* dispose of their old horses in this way, they would find themselves 500,000 dollars better off at the end of the year.)

Mr. Stevens then shows what the state pays to the manufacturers of the other states, or other countries, for manufacturing the wool, or the same amount of wool that is raised in Vermont, and calculates it at $1,620,000; and that thus every citizen of the state pays $5 for manufacturing his woolen cloth for one year. Mr. Stevens says:

"More than five dollars are wanted from every individual in the state to pay for his clothing; can it be paid? The whole bank stock of this state actually paid in will not do it. If you turn out one-fifth of your cattle at 20 dollars a head, amounting to $876,080, and 20,000 old horses for $400,000, there will still remain 344,000 due to make up the sum of $1,620,000 for manufacturing, and this too every year. Can you

live and prosper under this system?—can you furnish the raw material in exchange for the manufactured goods? No, you never can. All your banks may discount five, ten, twenty, for every dollar of coin they can keep in their vaults, and we must still continue to be a miserable and indebted people."

The conclusion at which Mr. Stevens arrives, and in our opinion it is a sound one, is that the citizens of that state, situated as they are in regard to the profitable production of grain, should engage in manufacturing, at least to such an extent as to work up the raw material produced in the state. That this may profitably be done, he shows clearly from the nature of the population, the low rate of living, and little expense for water power in the interior of the country. This he illustrates by the prices paid at Lowell, Waltham, or Pawtucket, for water privileges.

In some of Mr. Stevens' protective notions, and opinions of legislative duties, we do not fully concur, still they are urged with great candor and fairness, and with the most laudable intentions,—that of rendering his fellow-citizens truly independent, by combining in themselves the processes of necessary production and consumption, as far as possible. We subjoin the closing paragraph of his address as one in which most will concur:

"I wish that the guardian angel of our country would write in great capital letters on the outer door of every husbandman—the woman who manufactures for her own household, and one piece of goods to sell, does more to retain the solid coin in our state, than all the banks, or the greatest financiers."

GRAIN MARKETS.

We subjoin the two following extracts from the London review of the corn trade, during the month of October 1838, because they state important facts; and because the last we think unveils the reason why the prices of grain in this country for a number of years have been scarcely remunerative.

"That the corn trade in all foreign markets is regulated by London prices and prospects, has been completely verified by the operations that have occurred in them during the season. The value of wheat was considerably affected in all the corn markets of the U. S. of America for instance, as soon as it was known that this article was admitted by the corn laws for consumption in this country at the low duty of one shilling per quarter. Throughout the American Union the wheat crop has been abundant, andt he quality superior to the growth of common years. * * From various parts of the Canadas and the U. States, a considerable supply both of wheat and flour will very probably be received here during the season, and it is not unlikely the shipments which may be made from the latter republic, may be so managed as to gain admission for consumption here, under the colonial rates of duty, should no material decline in the mean time occur in the foreign duty."

"The Morning Chronicle asserted a few weeks since that the English corn laws were exceedingly unpopular in all foreign States, wherein grain was produced, and certainly a greater truism was never published in a public journal. Our corn laws have without doubt caused the prices of agricultural produce to decline in these countries lower than it can be produced for, and these cheap prices have been attended by the usual consequences. The value of labor has been depreciated in even a greater degree, and the means to purchase the necessaries of life, have not been sufficiently extensive for the profitable consumption of the produce of the soil, even at its depreciated value."

Here it is distinctly stated that the London grain market controls the price of grain throughout all grain growing countries—that the English corn laws keep the prices of grain in those countries at a low rate; that these rates are lower than will permit its profitable growth—that these causes depress the value of labor in a still greater degree in those countries; and that they tend to lessen the ability to purchase the necessaries of life, even at depreciated value. The correctness of every one of these positions we think may be substantiated with ease; and if so, their consideration is deserving the attentive reflection of the legislator, or the practical cultivator. That the corn laws of Great Britain do produce the effect attributed to them is clear from the influence of their removal, (in effect) by the rise of grain in England during the past autumn, produced on the price of wheat here. The reduction of the duty on wheat imported into England, to one shilling a quarter, raised the price here almost instantly 25 cents per bushel; thus clearly proving that these things left to their natural course, we should produce much of the bread used in England, and that at rates that would at once place the producer of wheat and the laborer on a better footing. There can be no doubt that the demand for grain in this country is so confined, that it offers no inducement to extend the culture, or invest new capital, in its manufacture, thus demonstrating that prices are lower than will permit its profitable growth, all things considered.

WORTHY OF IMITATION.

A late number of the London Chronicle contains a letter from an English traveler, in which is the following paragraph:

"Having had occasion recently to visit Geneva, my attention while at that place was arrested by a stone pillar, which I observed on the quay, by the side of the lake. On approaching it, I discovered a barmometer and thermometer fixed into it for the public observation and use."

It has occurred to us that if this was imitated in this country, and such instruments were fixed in some prominent or central place in our cities or villages, for the accommodation of the public, much good would result. The first as fortelling changes in the weather, the approach of gales or storms, would be of essential service to the sailor, the fisherman, and not least of all, the farmer. Many serious losses might be avoided were this instrument more common, and its prognostications better understood. Since its use in notifying the mariner of the approaching tempest has been recognized, many vessels have been saved that otherwise would probably have been lost; and though the results might be less decisive in the case of the farmer, experience shows that to him a knowledge of the coming weather is very desirable. The utility of the thermometer is better understood, as the instrument is more common.

Suppose, in the principal squares of our cities or villages, columns were to be erected, in which, properly secured, but open to the observation of all, these instruments should be placed. It appears plain to us that the principles of meteorology, interesting to all, but familiar now only to the few, would soon receive the attention they deserve. Instruction would be imparted, and interest in the phenomena of nature, more or less excited. We know of but one serious objection that could be made—and that is, "the instruments themselves would not be safe from demolition for an hour. Every loafer that perambulates the streets, every mischievous urchin that wished to exhibit his prowess, would strive to be first in the work of destruction." We know there would at first be some danger from these sources, but much less than is here supposed; and the commonness of the thing would soon do even this little away. We hope to see the experiment tried.

IMPROVEMENT OF THE MIND--No. 2.

The intelligence and moral elevation of the coming generation of farmers depends upon the young farmers and those sons who will soon come upon the stage of action. Each one is to contribute his portion to the character of the great body. The whole must take its name from the character of the individuals which compose it. Each one is to aid in giving the reputation of stability and honor or of weakness and vice, of intelligence or ignorance, of moral worth or depravity, to the coming generation. Is there any obligation upon a man, upon a young man, to use his reason, and to use it for his own and the public advantage?—to be virtuous, and not to be vicious?—to exert a favorable influence upon community, and not an injurious tendency? How shall any one do this? First, let him prepare his mind by the acquisition of all the knowledge in his power; and, secondly, at the same time, and continually, improve all his moral capabilities. Knowledge without virtue will not avail, and virtue with little knowledge, will give him only a very limited influence. The mind, like the rude diamond, is to be fashioned and polished to show its powers and to bring forth its beauties.

Now, let me ask the sons who are soon to be farmers, and the young farmers also—how is your time employed when not engaged in your necessary pursuits? Allow all that is necessary for amusement or recruiting the mind, and a great deal of time is not important for this object—for the farmer and mechanic have an advantage over all others in this respect, that their work has but little of wearying effect upon the mind, while the student and thinker, and poet, and lawyer, and author, wear out in their necessary labor both body and mind—but, allow all that is important, and what yet remains of unemployed time? A stormy day often makes unexpected leisure, an hour sometimes occurs, even in the regular pursuits of business, which can be employed in mental improvement. The evenings that are long, give plenty of time for reading a great deal, and the evenings that are short, offer some leisure for the same object. In this way, the thoughts can be directed to the improvement of the farm, the better knowledge of the details of husbandry, the preparation for experiments in agriculture, and above all, for the general and special improvemont of the mind.

I look back upon many a leisure hour, when I was young, on a farm, which might have been employed to great advantage. The tact is just to seize upon the fleeting moments, that will otherwise soon be past and lost. Let a book on some suitable subject be at hand, so that you can read at once, and let it not lie long unemployed. Look at Franklin, what he was, and what he became. He was a printer, a journeyman printer poor, but he enriched his mind by reading and reflection until he became an oracle of wisdom to his age. Read his life, and you will learn from him the mystery of employing leisure hours to high advantage.

Near the writer lives a farmer, on his own farm—an actual cultivator of the soil—who has become familiar with much knowledge on the principles of mechanical philosohy, chemistry, geology, botany, and a variety of subjects of great interest, besides all the ordinary objects of knowledge. He has acquired a wide range of general knowledge. How has it been done? By employing in reading and study one hour or two in the evening for successive years. He began the practice early in his youth, and scarcely permitted a day to pass without some acquisitiou in knowledge, however weary the labors of the day had left him.

The "Botany for Beginners," by Mrs. Phelps, a lady well qualified for performing the work; besides that many a female has an admirable tact in communicating knowledge—will afford a rich treat to the mind in many a leisure hour. It will make you acquainted with the structure and habits of many plants, and show you much of the wonderful contrivance, design and adaptation to be seen in the vegetable world. Take for the present only the following quotation:—"The botanical name of the germs in which the potatoe is found is *solanum*, from *solor* to *comfort;* because some specimens in the same germs possess narcotic qualities. You would not expect to find in the same germs with the potato, plants which are highly poisonous, and yet here is the *night shade* (bitter sweet) whose berries are so injurious to life, that thirty of them given to a dog first drove him mad, and then caused his death in less than three hours. Children should be careful not to touch these berries, which are red, and might easily be mistaken for currants, especially as they grow by hedges where such fruit is often found."

INQUIRY—TOBACCO.

Mr. Tucker—Will some of your correspondents inform us how Tobacco should be cultivated and cured.

Michigan.

COMMUNICATIONS.

LUCERNE.

Mr. Tucker—I have read with great interest the letter of Mr. John Lowel, in the Monthly Genesee Farmer of November last, and quite concur with him in his opinion of the value of Lucerne. My impression is that two or three acres of it used for soiling Cattle, would add one-third to the produce of a farm of one hundred acres, both from the greater number of Cattle that could be kept on the farm, and the larger quantity of manure that could in consequence be made, so that its good effects would be seen in all the crops. I beg to offer you the result of my experience in cultivating it here.

The very rapid growth of weeds in this country is a very great difficulty in the way of the cultivation of Clover; so much so, that I have found it impossible to grow it in drills, as the practice is in England. I sowed three quarters of an acre of it in drills in 1834; in 1835 it cost me $52 to weed the crop, yet in 1837 half of it was already choked by the growth of grass, clover and other herbs. Part of it too was killed in hollows where the water lodged in winter. Seeing the culture by drills so unsuccessful, I sowed some Lucerne seed broadcast and thickly, in a square plot of sandy loam, in my garden, on the 19th of July, 1836. In two months after it was sown I pulled out a root, which then measured 30 inches from the top of the leaves to the point of the root. In 1837, it was cut on the 9th of June, and on the 9th of every subsequent month to October, growing in each month about 18 inches. It was cut also five times in 1838, and if the spring had not been so cold, I think it would have been fit to cut by the middle of May, as it began to sprout in April but was choked by the cold; the temperature having decreased in the latter half of the month of April.—The conclusions which my experience seems to afford, are the following: 1st. That Lucerne should be thickly sown, (Mr. John Lowel says 20 lbs. to an acre,) upon sand or sandy loam, with slopes sufficient to carry off water, and without hollows in which water can lodge. 2d. That in order to prevent grass and weeds creeping into the Lucerne, there should be a border round it of 5, 6 or more yards in width, in which should be grown every year, mangel wurtzel, potatoes, or other roots which require the soil to be well weeded.

Lucerne would be best, preceded the previous year by a crop of potatoes to prepare the land, and as it need not be sown till the end of May or early in June, the land might be ploughed once or twice previous to the sowing.

Lucerne will grow vigorously on pure sand; for a gentleman who has recently resided at Dunkirk in France, tells me that he was surprised to see its great growth on the pure sands adjoining that town.

I have known Lucerne to continue to grow for sixteen years in England. I am sir, &c.

A Subscriber.

EXPERIMENT IN CROSSING SHEEP.

Mr. Tucker—I observed in the last number of the Farmer an article on the Leicester and South Down breeds of sheep. I have been trying some experiments on a small scale, on those breeds crossed with the Merino, which are as follows:

In the fall of 1835, I procured, after a considerable time and expense, ten Spanish Merino ewes, which I put with a Leicester buck that was imported by Mr. T. Weddle. From this increase I selected a buck, which, in form, quality of wool, and thickness of fleece, very much resembles the South Down but somewhat larger.

The following fall, 1836, I divided my Merino ewes, as nearly equal as possible as to size, five of which I put with this buck, the other five were put with a South Down buck from the flocks of Mr. Parsons of Riga.

From these ewes I raised ten lambs, five of each kind, which were sheared last June, at about thirteen months old. The five of the South Down cross yielded twelve pounds and eleven ounces of wool: but little over 2½ pounds per head. The five quarter Leicesters, twenty-five pounds and four ounces, being nearly five pounds and one ounce per head. I can discover no difference in the quality of the wool of these two crosses. My expectations in the cross with the Leicester, so far, have been more than realized, my object being to establish a breed with a strong constitution, a good carcass, and a heavy and fine fleece, which I think, by selecting the best and discarding the rest, I shall in a few years accomplish.

If you think this, or any part of it, of any benefit to the public, and can put it in a proper shape, you are at liberty to insert it. Boughton Hill.

Victor, Jan. 14th, 1829.

TO PREVENT THE HOLLOW HORN.

Mr. Tucker—I saw in one of your numbers recently two preventives for the hollow horn, and I have though proper to add a third, for preventives are always better than cures, provided they do not cost too much. I will here just observe that I have been somewhat of an extensive cattle raiser for about forty years, and I never had a creature have the hollow horn in my life. My my first preventive is to cut off a small piece of the end of the tail when young, say four or five weeks old—if intended for veal, when 2 weeks old. Many people bleed in the neck, but one gill of blood from the end of the tail is worth one pint taken from the neck. Also bleeding a little at the tail in the fall will many times prevent the black leg, commonly more prevalent among calves in high order, which I consider caused by the stagnation of blood. My practice is to cut a little off the end of the tail as often as I see it hang in a quirl or twist, which is a pretty sure indication of their having the hollow tail, or as some farmers term it, the tail sickness. Now, sir, perhaps some of your readers may reply to the foregoing observations, as one did to me in the Ploughboy paper, printed in Albany, that it would be better to take the tail all off at once and not keep tormenting the creature every year. I retort, why not take all the blood out of a person who needs bleeding yearly? Don't every farmer know that the spiral marrow, as it is called, is kept in one general reservoir from the end of the tail to the end of the pith in the horn? Some of your readers may say that they want their cattle to leave a brush to defend them from the flies. So do I, but you can dock your cattle a number of times, and still have a plenty of brush for that use. Splitting the end of the tail answers the same purpose, when the tail is docked to a proper length. I always consider it indicative of a poor cattle breeder, when I see the cattle's tails dragging on the ground, loaded with mud, snow, ice, and many times with burdock seed enough to infest a whole plantation. Now, Mr. Tucker, if your readers will follow this simple practice, together with the second preventive in your second No., present volume, which was good keeping and a warm shelter, (which is necessary for the health and comfort of all our domestic animals,) we may wholly dispense with the first, which was a teaspoonful of turpentine on the cavity of the head, which may be of use if left and neglected until they are troubled with that almost fatal malady. My own experience and long observation warrants me in saying that thousands of cattle have died for want of that simple remedy or preventive, and as many thousand more dragged out a miserable life with their eyes half sunk in their head, and I consider this preventive of so great importance to our farmers, and it is so little attended to, that I wish you to publish it in both your valuable papers, for a word to the wise is sufficient. Samuel Griggs.

Inqniry---Bite of the Rattle Snake.

Mr. Tucker—I am going to move on a farm in the spring, on which it is said there is a great many rattle snakes, and I should like, if you or any of your correspondents know what is a sure remedy for the bite of a rattle snake and other poisonous snakes, to see it published in your paper, and I think it would be useful to many others as well as myself. I have understood that there is some plant that is a sure remedy, but cannot find out what it is. Also the manner of using the remedy would be useful. A Subscriber.

Errata.—There are some few errors in your copy of Sheimer's System of Farming, which need correcting.

14th line, "furrows it out into eight lands" *each way*, for lime, and "when the stable manure is put on, it is ploughed a second time before harvest." 41st line, Mr. Sheimer says that his *third* crop of wheat *is* always the best.

Horticulture in Wesrern New York.

The "Magazine of Horticulture, Botany," &c., published monthly at Boston, is a valuable work on the subjects of which it treats. It is edited by C. M. Hovey; and published monthly, at $3 per annum. Reynolds & Bateham are the Agents in Rochester.

In the January number of this Magazine, we find the following remarks—

Horticulture in Western New York—by M. B. Bateham, of Rochester.

Western New York, or, as it is sometimes called, the "Genesee Country," is proverbial for the excellence of its soil, and the salubrity of its climate, as well as for the enterprise and public spirit of its intelligent inhabitants. With such unrivalled advantages, it might naturally be expected that the sister arts of agriculture and horticulture would here make the most rapid progress, in the march of improvement, and soon attain a high degree of perfection. But, it must be remembered that this country was, but a few years since, a wilderness; its inhabitants, besides paying for their lands, and providing the necessaries of life, have had a dense forest to subdue; dwellings, villages and cities to erect; roads and canals to construct; and the commercial and political affairs of a rapidly increasing population to engage their attention. Under such circumstances, there has been but little chance for an accumulation of superabundant wealth; and, although there exists a great degree of general taste for horticulture, but few individuals can be found who possess sufficient means, combined with the requisite taste and disposition, to devote much time or money to rural embellishments, or the delightful luxuries of floriculture.

About ten years ago, a few individuals began to manifest a desire for the advancement of agriculture and horticulture in western New York; and in two or three years, several associations were formed for the purpose, which were highly beneficial to the community. A horticultural society was formed at Geneva in 1828. Its meetings and exhibitions have been held alternately at Geneva, Lyons and Canandaigua, and the taste for horticulture and rural embellishment, which is so conspicuously displayed in those beautiful villages, affords ample evidence of the usefulness of the society.

The Monroe County Horticultural Society was organized at Rochester, in the fall of 1830. Its meetings were, for several years, attended with a good degree of interest, and some of the exhibitions of fine fruits and vegetables would not have been discreditable, even to the halls of old Boston.

The well known *Genesee Farmer* and Gardeners' Journal was commenced January 1st, 1831. This, together with the two horticultural, and several agricultural societies, created a universal excitement and spirit of inquiry on the subject of improvement. The knowledge and discoveries, together with the choice productions of older countries, were rapidly introduced and disseminated; competition and laudable emulation were encouraged by awarding premiums; old errors and prejudices were abandoned, and new objects, as well as new modes of cultivation, adopted. By these means, the cultivators of western New York began to see and appreciate the blessings which a bountiful Providence had placed within their reach; and the rich valley of the Genesee bid fair to become, by art and cultivation, what it was evidently designed to be by nature,—the garden spot of the west.

Owing, however, to unpropitious seasons and the failure of several fruit crops, the societies and exhibitions lost their interest; while the commercial embarrassments, and political excitements so absorbed the minds of the community, that all associated efforts for the improvement of domestic affairs were neglected; and horticulture being so peculiarly a social art, but very little has been effected by solitary individuals.

The present condition of horticulture, in this section, may be mostly inferred from what has been said of its past history. Gardening here is seldom studied as a

science, and practised as an art. The majority of families possess gardens of greater or less extent, and many of them are well supplied with fine fruit and vegetables; but very few individuals are willing to devote any considerable attention or *expense* to their cultivation, especially in the department of floriculture. Above all, it is surprising that so small a number, even of those who possess sufficient means and good taste, do not oftener prove that

> "He who loves a garden, loves a *green-house* too:
> Unconscious of a less propitious clime,
> *There* blooms exotic beauty, warm and snug,
> While the winds whistle, and the snows descend."

There are a few private residences, with gardens and green-houses attached; and also several thriving nursery establishments, which deserve more particular notice than my present limits will allow, and some account of which, I may hereafter furnish you.

It is gratifying to observe that the spirit of improvement is again beginning to revive in this section, some evidence of which has been quite perceptible the past season. A number of influential citizens have suggested a plan for an extensive association, to be called "the Genesee Valley Horticultural Society:" to include the counties of Monroe, Livingston and Genesee, together with such individuals from the adjacent counties a choose to unite. This district will include many individuals of wealth and taste, who are ardent friends of horticulture; and whose united efforts for its promotion could not fail of proving eminently successful.

Yours, truly, M. B. Bateham.

Rochester Seed-Store, Dec. 10th, 1838.

From the Practical Farmer's Manual.

ON DRAINING.

MC PHUN, GLASGOW.

Draining of land is absolutely necessary to its productiveness. It matters not that your fields have no springs in them, rendering them soft and boggy: it is necessary to carry off all surface water quickly, so that it do not stagnate and sour the land. Draining is of equal benefit both to the pasture and cropping parts of your ground, improving the quantity and quality of grass on the former, besides rendering them more healthy, and increasing the quantity and quality of grain produced on the latter. Let the farmer try the experiment, and he will find that there is no money better laid out, and no labor for which he will be better rewarded.

Your pasture will, in all likelihood, contain a considerable portion of soft, spongy kind of moss, or cold wet red till, from both of which considerable quantities of water run over the rest, making it throw up great quantitities of sour grass and rushes, of no use whatever to your stock. In consequence of this wetness, the *rot* prevails among the sheep, carrying off numbers of them, and occasioning you great loss. The question is—could any thing be done to make your pasture more healthy, and thus preserve many valuable animals, and, at the same time, produce more good nourishing grass, and thus keep your stock in better order, or perhaps feed a greater number? The only way you can do this is by draining. Wherever there are bogs on the low lying parts of your pasture, you will often find that the water comes to them from some higher ground. The first thing to do is to find out the springs on the sides of the hills, and cut a narrow drain so as to receive the water from as many as possible, and lead it down to where you wish it discharged. They are made easily by cutting into the soil as deep as is necessary, and throwing the earth on the low side; remembering always to keep them narrow, and to make passes here and there for the convonience of sheep and cattle in crossing. This will do a great deal. Your next work is with the soft ground lower. These a few sheep drains, judiciously drawn, will speedily cure; and the very next year after doing this you will find the grass it produces not only more plentiful, but also more palatable to your flocks. Any of the finer pasture, which you may be desirous of improving, by freeing it from any superfluous moisture, may be treated thus:—Take a plough, and draw a good deep fur in the direction you wish for your drains; then with the smallest drain spade deepen the *gaw* a few inches, and turn back the turf which the plough lifted; and so on through the whole field. This will drain it of all surface water, and last a great many years. The water colleted in the drains formed at the sides of your hills for cutting off the spings, may be turned to some profitable purpose; for if it is let to flow over any piece of lower lying ground which is covered with heath, it will soon destroy it and raise in its stead good wholesome grass. Or it may be collected in one stream, and directed to the homestead, for driving your thrashing mill, or for any other purpose connected with the farm.

The draining of your arable ground next claims attention. It is of the utmost consequence to your success as a farmer, that you be able, at all times, to take the surface water quickly away, not permitting it to lie on the subsoil, chilling the whole ground and retarding vegetating. If your fields lie on a declivity, they will need less draining, unless there be some springs in the ground. If they lie level then they will require to be pretty numerous. Your soil will, in all likelihood, be either of a moorish or sandy nature; strong clays are not often found in high situations. If it be of the first kind, it will likely lie on a subsoil of a cold retentive kind of clay, which does dot permit the water to subside, and therefore your fields will be cold and vegetation slow. Your drains in this case, would require to be pretty numerous and at least a foot deep in the clay that is below the upper soil. The drains may be made in either of the following ways:—With a common spade dig a trench thirty inches deep, and then with the small stones which you got on the field itself, or at some convenient place, fill it up twelve inches, above which a thin turf, with the grass undermost, is laid and the whole filled up: or after digging the trench, as directed as above, take a narrow spade and dig a small spit from the centre; this leaves a shoulder on each side to support a sod or turf, pretty thick, over which the earth is filled in. Or again, with proper spades, let the drain be dug, and then let heath, with the tops up, be laid close and compact, over which fill in the earth. Either of these will answer the purpose, and may be adopted as fits your convenience, though it may be remarked that the first is the most durable, and generally the most satifactory. Of course the main drain to which these are led will require to be considerably deeper, so as to convey the water away freely, and it will require to be yearly scoured.

In light sandy soils draining is required only for carrying off the surface water. They will not need therefore to be so deep as in the former case. A few inches into the clay that is beneath the soil will be all that is necessary. Such descriptions of ground drink up the rain greedily, but do not retain it. All gravels therefore require to be improved by being made a little more retentive. This you may easily do if there is any moss at hand. Moss retains the moisture, and, when mixed with such a soil, materially improves it. If you intend to do this, let the moss be dug before winter, that it may be crumbled by the frost, and aftewards, when most convenient to yourself, cart it on the piece of gravel or sand you wish to improve; and when they have been well mixed by ploughing and harrowing, you will find that, in dry scorching seasons, you have a far surer chance of a crop. Perhaps the best way to improve such land will be to manure it with the moss compost, to which reference will be made in another place. A good rule for draining is to put one in every fur, which is the cheapest and best method.

The methods here recommended for draining are neither difficult nor expensive. They are within the reach of every tenant. Begin and do one field this year, and another the next, and so on, by the time you have finished, you will be a richer man ten times, than if you had left them in the state you got them. In wet seasons your spring work will be a fortnight earlier than your neighbor's, your harvest will be surer and more plentiful, and your clover and lea will throw up much more grass than it ever did. Try the experiment on one field, and there is no fear of your seeing the advantage of going on with the rest.

ORCHARDS.

We would not say much on Orchards at this time of year, were we not constantly reminded, winter and summer, as we pass along the road, of the amount of labor that has been thrown wholly away by inefficient attempts to plant an apple orchard. We have come to the conclusion, from the orchards we have observed in our various travels, that the owners of ninety-nine in a hundred, had generally thrown away their labors, and that the orchards they attempted to plant were only a nuisance to their grounds. These lands were generally quite rich enough for trees of this kind. This was not the evil. The trees were not well selected at the first—they were not carefully taken up—they were not properly set in the ground—they were not tilled after setting, and the cattle in most cases were called in to trim the trees. It was an old maxim, that he who plants an orchard, plants it for the next generation. We should say for his cattle to rub against, or for his hogs that were fond of the bark of the trees.

Now he that plants an orchard need not make up his mind that he is necessarily at work for others, and we hope if we can but make him believe he is at work for himself and is not an hireling or disinterested he will proceed in his labor with faithfulness and skill.

We will warrant him, if he will exercise any common degree of judgment, a good crop of apples within five years of his transplanting, and if he plants an acre, he shall have winter and fall fruit enough for a dozen in a family.

Now to the work. His land shall have been tilled the year before setting his trees, and made as rich as usual for Indian corn. It should be ploughed in the spring, before setting the trees, and well harrowed. This ploughing need not be deeper than for corn. It is a great error to set trees deep in the earth,—some do it to procure moisture for the tree—some to make room to thrust in a quantity of manure—and some so that the tree may have a firm support and not be racked by the winds.

Now we say to you, brethren, imitate none of these modes; a tree, set deep, is set n the poorest earth.—Place your trees so that the roots may have the richest. Never put manure of any description about the roots, if you would have your trees live. Place nothing but good garden mould next the roots. Give them sufficient room. Make the hole for them *broad* but not *deep*.

When you have covered the roots with good garden mould, and spread out the fibres so as not to crowd a peck of them into one heap—roots are not fond of close intimacy. Like bachelors they always prefer a separate bed; and like old maids they should always have one.—When you have covered these roots with good soil, take from your cow-yard any coarse litter that will retain moisture, and place it round the tree, treading it down close so that it shall form a support to the tree. This litter should lie several inches thick after it has been trod down. If you have none of this litter, coarse manure may be used—old stack hay or straw will answer the purpose. This litter must lie here through the season and be kept trod down close. Now you need no stake to gall the trees, your litter is a sufficient prop. You need put no water about the roots, for your litter or coarse hay impedes evaporation to such a degree that the earth under it will continue moist through the whole summer. If the tree is racked a little by the winds, so much the better; it is thus taught early to rely on itself for support. A staked tree is like a spoiled child.—Spoiled with too much nursing. The litter about the tree will prevent the racking by the winds, and the opening of the ground to let the air to the roots, and will save you the trouble of any hoeing or tilling for the first year. No weeds will grow under this litter—no grass—the two great obstacles to the extension of the roots.—Your soil will thus be kept mellow, and porous, and moist.

In autumn—before any snow falls, you must remove all the litter, that has not become rotten, to a distance from the trees. You will thus give some offence to mice that are always fond of making their bed, like politicians, close to some towering object that may afford them future support. If your cats have done their duty and killed off their fresh-meat stock in due time, you have nothing further to do the first season. But if your cats have been negligent and got their rations out of your commissariat, rather than glean them abroad in honorable services in the field, you must go out as soon as the fi st snow has fallen, and tread it down close about the roots of your trees. Your field mice must now seek some other habitation, in case they had commenced building as squatters on your soil, and you need be at no further trouble through the winter, for they, like the Cherokees, are not for voluntary emigration in the midst of snows. Now your trees are well set. They have not only put out the leaf, but their limbs have extended—if you saw to the work yourself—from half a foot to a foot each way. They will need but a very little trimming this, second, season if you trimmed them a little on setting them. They must have top. Their leaves are their lungs, and a good proportion of leaves are indicative of good health, as good lungs are in animals. What will you do with your trees this, second, summer? Will you suffer the grass and weeds to draw away all moisture from the neighborhood of the roots, and occupy the space intended for them? We trust not. Keep your land in tillage three or four years, at the least. You may raise exhausting crops, if you will apply manure. You may raise beans or drilled turneps without manuring this season—you may sow turneps broad cast as late as the first of July without injury to the trees. In fine you may plant almost any thing among your trees and they will grow quite as fast as they should grow, provided always you keep up good tillage.

On the first of October, in the fourth year, we will call on you—in case you took your trees from our nursery—and help you pick half a dozen barrels of winter apples from an acre of trees. If this happens not to be a bearing year, we shall wait one year longer, and then give you a friendly call and see that you have appointed some *two legged* animal to trim in preference to such as sometimes, for want of proper instruments, cut a little too close and do not leave the body quite so smooth as it might be left with a knife.

More may be said, next week, on this subject if you will draw your chair up close so that this everlasting clatter on the pavements shall not interrupt our converse. Will you call at our office again?—*Boston Cul.*

From the Yankee Faemer.

IMPROVEMENTS.

IN WHAT SHALL WE IMPROVE?—As we are beginning another year and are already thinking about making preparations for an other *agricultural campaign*, we are led to inquire in what shall we improve; and at this thought subjects innumerable are presented to our consideration. Ask the best scientific and practical farmers in the country, those who have long excelled, in what *they* can improve, and they will say that they consider almost every department in agriculture, and all the various branches of economy connected with it, as susceptible of great improvements; that still they have subjects new and interesting, on which they wish to learn by experiments, observations and reading, in order to get more information, which will enable them to conduct their affairs to better advantage; and this want of information which they feel, is not owing to a want of intelligence, but to their becoming so enlightened as to see their need of more knowledge, while others feel not their deficiency, because they have never yet dreamed of those subjects, which their brethren more advanced feel anxious to investigate.

Now if our best farmers can improve, is there not much room for others to follow on and learn from their examples, and by various other methods that may present themselves. Every branch may be improved from the most trivial to the greatest, from the feeding of fowls or setting them on eggs that will produce the desired gender in the offspring, to those important subjects that seem destined to make a revolution in our trade and add millions and tens of millions annually to the wealth of the nation by new sources of industry, without impeding our usual progress in other branches. We will name a few of the most important subjects for improvement that claim our attention.

Beet Sugar.—If beet sugar is not a subject to which we ought to give our attention, sugar beet surely is, for though we are not acquainted with the method of making sugar from beets, we can cultivate the beet for stock, for which it is very valuable, and with this business it is necessary that we should become acquainted before beets can be raised sufficiently cheap for making sugar. But few know much about raising beets to advantage on a large scale. We must learn the best kind of soil, the best and most easy modes of culture, the right kind of manure, and the best machinery for sowing seeds, weeding, &c. &c. before we can raise the beets, and all this we may practice to advantage as we can give the crop to our stock with profit. As beet sugar is made in abundance, and with profit in other countries, our people, who are equal to any other in the world for ingenuity, will soon learn them out, and we have no doubt that ere long vast quantities will be made in the northern states. On this subject farmers need all the information that can be obtained, that they may know in what manner and how fast they may with propriety proceed in this business.

Silk.—This is a new business in the country; but few have attended to it, and that few have done but little, yet what has been done is sufficient to show that it will be profitable in the families of farmers, and that a knowledge of it is no more difficult to obtain than that of the usual concerns of domestic and rural economy; and those who have attended to silk raising, have by experience acquired valuable information that others can cheaply obtain through the medium of books and papers. Every farmer should give attention to this subject, learn the method of raising trees and managing silk worms, and then consider whether he is properly situated to pursue it to advantage. This will become a great business, and there is no danger of its being overdone, for 20 millions of dollars worth are now needed to supply the United States, and the demand will increase as the business progresses, and finally like cotton, it will be manufactured for exportation.

Implements.—Great improvements have been made within a few years in implements of husbandry, from the most simple and small to the most complicated and important; but these have not generally been introduced among our farmers. By these improved implements farmers may, in many kinds of work, save from one-fourth to one-half, and sometimes three-fourths of their labor. The simple, pronged hoe saves one-fourth the labor in digging potatoes, and in some other operations. Improvements in ploughs saves one half the expense in wear, a great deal of labor in the draft, and much is gained in the superiority of the work. By a horse rake hay may be gathered on smoooth ground, as fast as five or six men. The cultivator is as good to a farmer during the hoeing season as a good hand, and it will cost only about as much as he will have to pay for a week's labor, and it will answer for other purposes and last several years. With a good corn-sheller, a farmer can shell corn enough to load his horse, while his "better half" is preparing his breakfast; this would be a good day's work, in the usual way. With good seed sowers and corn planters, seeds may be sowed and planted with less than one-fourth the labor required in the common method. This subject might be continued to great length but we only name a few articles to show how much the farmer may save by improved implements.

Reclaiming low lands.—Low lands that produce nothing but weeds and bushes, may be reclaimed at a moderate expense, and made to produce abundant crops of good English grasses. These lands are enriched by the vegetable substances that have been accumulating for ages, and rich by surface soil from the high lands, and when properly reclaimed they are the most productive in grasses of any among us. In seasons of drouth they yield large crops when high lands generally fail.

Renovating Lands.—Old lands that appear to be worn out and worthless, can be so renovated that in few years the crops will pay all the expenses and the land will be in a fertile state. Many a field that once afforded but a scanty supply of herbage for the grasshopper, has been so improved at a small expense that it has yielded large crops of grain and grass.

Roots for Stock.—By raising roots for stock our lands can greatly be improved, and a large quantity of food produced from a small space, and by feeding stock with roots in winter are kept in a healthy state. The land is improved not only by the root crop being more ameliorating than grain; but yielding a far greater amount of food, the farmer is enabled to keep more stock and of course he will have more manure for his land. A good crop of roots is usually worth four or five times as much for stock as a crop of grain from the same land, and cattle kept on green succulent food in winter, are in a more healthy and growing condition than when fed on dry fodder and grain; and cows fed with roots will give as much milk as in summer, other circumstances being equally favorable.

We have remarked on only a few subjects, hundreds of others claim our attention, and among them there are some of importance with those we have named The improvements we have mentioned as practical in the agricultural interest, do not exist merely in theory, a matter of speculation only, but they exist in the practice of our best farmers; their accounts in these improvements prove to a demonstration the great profits arising from them; and after a few years we find a balance in their favor, to which is added a handsome sum annually. Every prudent farmer will see the importance of availing himself of every opportunity of gaining information that will enable him to manage his affairs in the most judicious manner. He will read, reflect, observe, practice, and *improve*.

From Chamber's Edinburgh Journal.

Making and Salting of Butter.

The following notes on this subject are by an individual (a female) who has been personally engaged in the preparation of butter for fifty years:—

Some time ago I observed in the Journal a comparison between Dutch and English Butter. Could the particulars of the Dutch method be obtained, it would be a very desirable acquisition; but I apprehend the superiority of their butter is chiefly owing to the pasture, and an unremitting attention to the duties of the dairy. In our own country, the pasture affects in a high degree the quality of the butter, old pasture produces much richer butter than new; and on some hilly grounds where wild flowers and certain kinds of grass abound the flavor is much finer than on low grounds, where the pasture is more luxuriant.

In the want of better information regarding this very necessary article of domestic comfort, I am induced to send you a few remarks, which may perhaps induce others who are better informed to do the same, so that the most approved methods of curing butter may, by the medium of your widely circulated paper, be known throughout the length and breadth of the land.

As a preliminary, I must beg the indulgence of being very particular, for the whole process is made up of small things, the neglect of one of which might affect the whole. I also wish it to be understood that my observations are chiefly adapted for the use of small establishments, where from three to six cows are kept. It is inferred that everything in the dairy is conducted with the most strict regard to cleanliness. It ought to be a cool, dry, well aired place, free from all damp and bad smells. It is a great mistake to suppose that the art of making good butter consists merely in having it properly churned, thoroughly washed and sufficiently salted. All this may be most pointedly done, and yet the butter turn out very bad. The main thing, and it must never be lost sight of, is to keep the milk in all its stages from contracting the least degree of taint. By taint I do not mean sourness. Sourness will not injure the butter; on the contrary, it greatly facilitates churning; and to obtain this in winter when cream is slow to sour, it is necessary to place it for twenty-four hours before churning, within the influence of a fire, and to stir it thoroughly two or three times during this period.

Cream ought never to remain on milk above thirty-six hours. This I consider to be a very important point, for if, by any omission, cream be suffered to remain for a longer time on milk, it is sure to contract an old bitter taint; and it would be more true economy to pour such cream into the pig's trough than to introduce it into the churn, as it will spoil the whole. A properly leaded stone jar is better than a wooden vessel for keeping cream, because wood is more apt than stone ware to get mouldy; a slight mould soon communicates itself to the cream, and of course to the butter.

A wooden rod must be continually kept in the jar, and every time cream is added, the contents must be stirred from top to bottom with the rod. This is very essential, for if neglected the cream first put in will gradually rise to the top, and so get tainted. Cream ought never to be kept above five days; but four is still safer for butter that is to be salted.

If the atmosphere at the time of churning be above fifty-four degrees, one quart of the coldest spring water to every three gallons of cream, put into the churn at commencing, will be a great advantage, and will injure neither butter nor milk. If there be the slightest cause for suspecting that the butter has suffered from hasty churning in warm weather, it ought to be salted for present use, and not put into the kit with keeping butter.

Butter on being taken out of the churn, ought to be instantly washed in spring water until the water come off colourless.—After this the sooner it is salted the better. In salting use the best English salt, such as is used in the curing of herrings. To three parts of salt, add one part of loaf sugar, both finely pounded, and perfectly well mixed. One ounce of this to sixteen ounces of butter is the proper quantity. Let it be thoroughly incorporated with the butter. In cleaning and salting butter, a stout creaming dish is preferable to the hands.

Kits made of wood are much superior to stone-ware in keeping of butter. The top of the kit ought to be about one-fourth narrower than the bottom, and the wood nearly one inch in thickness. A thin wooded kit is not so favorable for preserving butter.

In the process of salting, a little salt and water ought to cover the butter from the very first, and a piece of thin linen should also be spread over it. The sides of the kit must be daily wetted with thin salt and water, by which mould is prevented from forming on the empty part of the kit during the time of filling. The kit ought to be filled within one inch of the top, and kept constantly covered by linen, and a pickle of salt and water.—Butter is apt to rise above the pickle. This is easily prevented by turning over the butter a dinner plate. By placing a weight on the lid, the plate will be kept down. The kits must be kept in a cool dry shelf of the dairy, not on the floor, and occasionally moved a little round. Butter for keeping may with safety be salted during all the time the cows are on pasture. It is a most useful thing to have a slate in the dairy, whereon to note down the date and produce of every churning; also what is salted or otherwise: and these notes to be set down occasionally in a book. A jar of ready made pickle, just strong enough to move an egg, but not so strong as to cause it to swim to the top, ought always to be kept in the dairy. Have also at hand a can of prepared salt and sugar, to be kept in a dry place, as the dairy will be too damp. The kits ought to be all numbered, and those first salted should be first used.

I have still to beg your indulgence for a few thoughts suggested by the above observations. In this enlightened age, when each class of the community is vieing with the rest in improving the commodity which comes under their immediate care, it is surprising that public attention has been so little turned to the improvement of the mode of salting butter. The same complaints from the same cause are constantly to be heard, and there the matter rests, and so it will rest, unless general attention be directed to it, and a decided effort be made. Nothing is wanting to remove this grievance but a few slight attentions. There is no additional toil; no additional expense. What a pity then it is, that those to whose care the preparing of this article is entrusted, cannot bethink themselves to bestow these slight attentions. They should take into consideration the comfort of thousands of decent householders, who are both able and willing to pay for a wholesome article, but who have no alternative, but either to use the butter that is offered for sale, or want it altogether. There is another consideration which ought to have its own weight, namely, the honor of their country; and none, however humble, should think themselves too insignificant to contribute to this. It is the many that make a whole; and if we always throw our influence on the right side, we have the satisfaction at least of having done what we can to create the happiness of our fellow creatures. If gentry residing in the country took every opportunity of recommending to those under their influence the very praiseworthy emulation of excelling

in the preparation of butter, giving instruction where it is needed, and encouragement where it was due, this would be another very effective means of promoting our object.

Consumers are generally supplied through the medium of shop-keepers. Were these shop-keepers to buy only where the article was good, holding out a higher price to have it so, which I am sure their customers would willingly enable them to do, and take every precaution to preserve the butter after it comes into their own possession—were they to do this, and report their observations to the curer, a lively interest would be kept up amongst all classes, which might ultimately effect a great improvement in the article. Those who are attentive, would find it to their interest to continue so, and those who were careless would soon be convinced of the necessity of improvement.

From the Farmers' Cabinet.

Statement of the Culture and Products of a Lot, through a Series of Years.

Catawissa, Columbia county, Pa.,
Oct. 11, 1838.

Dear Sir—Knowing the deep interest that you have taken in the promotion of agriculture, and possessing something of the same spirit, induces me to communicate to you the manner that I have pursued in farming a lot, containing three acres and three quarters, adjoining our town. I have also farmed 130 or 140 acres to very good effect, a part of which has produced quite equal to the lot above mentioned. The lot is on the second rise from the river Susquehanna, and was formerly covered with yellow pine saplings—the soil is rather light—I purchased it 14 or 15 years since. I farmed it seven or eight years with wheat and clover alternately, mowing the first crop of clover and ploughing down the second, and sowing wheat after one ploughing, and harrowing it in. I have had 40 bushels of clean wheat to the acre in this way of farming, and found my land to improve. In the autumn of 1833, I sowed timothy seed shortly after my wheat, and in the spring following clover seed also, and had a good crop of wheat in 1834.

In July, 1835, I cut 16 1-2 tons of excellent timothy and clover hay from this piece of land, say worth $12 per ton, amounting to	$198,00
July, 1836, cut 14 1-2 tons of hay at $12	174,00
July, 1837, cut 15 1-2 tons of hay at $12	186,00
Oct., 1838, had 636 bushels of corn in the ear from 3 1-2 acres of it, say 318 bushels of corn at 75c. per b.	238,50
Oct., 1838, had from ¼ of an acre of headlands of lot, 30 bushels of potatoes at 75c. per bushel	22,50
Oct., 1838, had 200 pumpkins grown among corn at 1c. each	2,00
Produce of 3¼ acres for 4 successive years	$821,00

In the statement of the corn, I have not included 10 or 12 bushels of ears, sold or taken from the lot for boiling. The crop is rather extraordinary for the season. Last fall I ploughed down the sod that had been mowed for the three previous years, which sod had been well manured the spring before—early this spring it was well harrowed, and at planting time it was furrowed out three feet apart each way, and four g ains put in each hill, and two rows of potatoes planted around the lot. The cultivator was principally used in dressing the corn, and at the last dressing, one half the lot was reduced to two stalks to the hill, leaving three stalks in the other half, and taking care to let the thriftiest plants remain. In furrowing out, care was taken not to turn up the sod.

On examination of the ears, it was found that where there were three plants to a hill they were more numerous, but where there were two only, the ears appeared to be larger. It was the large yellow corn that was grown, and some of the ears were eight inches in circumference, and many of them from 13 to 14 1-2 inches in length. The seed was taken from stalks that had two or three ears on each, taking the upper and the best one. The lot has been sown with wheat since the corn was taken off; it had been topped, and as the ploughing progressed, a man and boy pulled up the stalks and placed them in the furrows, with the but or root end towards the plough, and in this way the whole of them are completely buried, and if I mistake not, will decompose and make a good manure. The ploughing turned up the old sod which had not been disturbed during the season, and it presents at this time on the surface the appearance of a rich coat of manure, and I would not exchange the chance for wheat from this piece for that of any other of the same size—if I live till next harvest, I will let you know the result.

I think there is an average crop of corn in the valley of the Susquehanna, from this to Wilksbarre, say 45 miles. The crop of hay never was exceeded; wheat excellent; rye and oats rather light, buckwheat very light, having been destroyed in most instances by the frost in the early part of September.

Respectfully, your friend,
JOSEPH PAXTON.

TURNEP vs. POTATOE.

We seem to be now all agreed that more roots should be raised for the fattening of animals, than we have been in the habit of raising. Corn must be raised, but it is an expensive article for fattening beasts. A small portion of corn meal, oat meal, or buck wheat meal, mixed with roots, pumpkins, squashes, apples, &c. make a good and cheap diet. The question now is, what root shall we prefer?

Shall we set aside the potatoe, the admiration and theme, for half a century of a wondering set of admirers who have discovered, not only that it does not impoverish, but that it actually enriches our soils? We cannot part with the potatoe. When ripe it is wholesome food. It has became a necessary of the dinner table. When unripe it is one of the most poisonous articles we attempt to use for food. Let us have potatoes enough for the table still, but for fattening beasts we can do better. Potatoes are said to *subdue* the new broken sod and fit the ground for future crops. We agree they *subdue* the land, and they *oppress* it. They exhaust our *light* soils more than corn does, and are not followed by so good crops as corn is, when both have an equal share of manure. We are aware our doctrine is somewhat new. We shall attempt to prove it satisfactorily in our future numbers. But to the turneps. We think we can raise three to four bushels of the yellow turnep—the ruta baga—as easily as one of potatoes, and that the turneps exhaust the soil much less than they. All theory is decidedly in favor of our position, as the turnep has more extent of leaf—more superficial surface to be acted on by the atmosphere than the potatoe has. It consequently gets more of its living from the air and less from the earth. Again, the turnep has but little root and cannot draw so largely from the soil as plants with more extended ones. We can raise excellent turneps with a little *surface* manuring, and the crops that follow are generally good. Potatoes require, in old land, already *subdued*, much manuring. The crop of grass that follows is not equal in our sandy loams to the grass that follows Indian corn—called by most people a great exhauster.

The cost of *seeding* an acre of potatoes is no small item. Sometimes we put on twenty bushels to the acre, and the cost of these is oftentimes ten dollars in planting time. Ten dollars for seed! Mr. Williams, who obtained a premium for the largest crop, states in his report to the Massachusetts Society that he planted eighty bushels of seed on his acre—forty dollars worth of seed! this is a larger sum than the whole crop of an acre of corn brings on the average. Then the planting or dibbling out of eighty bushels of potatoes, will make the back ache of two of our stoutest laborers. Now the seed for an acre of ruta baga, properly sown, costs less than fifty cents—the seed for one acre of corn, twenty-five cents. It is believed that one bushel of turneps, affords, when cooked, as much nutriment as one of potatoes. It is true, there are soils where turneps cannot be cultivated to good advantage—at least not in drills; but both the yellow and the white turnep may be easily raised by sowing broad cast, and they both delight in new or unsubdued grounds.—*Boston Cultivator.*

FATTING CATTLE.

The process of stall feeding oxen and cows in the winter on corn or oats ground into meal or otherwise, is expensive. Dear as it is, when stalled beef sells from 8 to 10 and 12 cents the pound, it may still be a question, whether the farmer will not do as well with his Indian corn or oats to feed it to his fatting cattle, as to sell it at one dollar for the one, and fifty cents the bushel for the other. Moses C. Pillsbury, Esq. Warden of the State Prison, who has a fine farm at Derry in this State, and was an excellent farmer while he resided upon it, has, in past years, fattened his oxen, one or more pairs each year, in this manner:—He generally works them during the winter, feeding, as is commonly done, with hay. Towards spring he commences feeding them, in addition to the usual hay feeding, two or three times a week on raw potatoes, salted in a mixture of Indian meal, or bran, just sufficient to make the handful of salt adhere to the potatoes, so that the animal will eat the whole with good appetite: he continues this feeding after the oxen are turned out to pasture, until the month of June or July, when the animals will have gained in fatness that shall give their greatest weight, and at a season when they will bring the highest price.

Mr. Pillsbury mentions a fact of which we had not been aware, and which we do not recollect ever to have seen in print—that potatoes in the fall and early part of the winter, are not as valuable in fattening cattle, or hogs, as they are when fed out as late, or later than March and April. In their raw state, when new, they scour the animal feeding upon them, and impart but little nutriment. They afterwards lose their cathartical qualities, and, used judiciously, are scarcely less valuable than corn or other more expensive grains. Potatoes kept until summer, fed in a raw state, are found to be very valuable for store hogs. Both, hogs and cattle, fed on them, should always be well supplied with salt, which keeps up the appetite, and regulates the diet. In the case of swine, the mixing a portion of brimstone sulphur in the common food, alternately throwing into the troughs a small quantity of charcoal as often as once a week, will keep them healthy and promote the sure growth of the animal to the full amount of the feeding. —*Farmers' Monthly Visitor.*

Statement of a Swine.

MR. EDITOR:—I have observed in the columns of the Farmer of late, several communicat ons respecting the profits of pigs or swine, and by your consent I propose to follow their example, and give to the public somewhat of a detailed account of a female swine I lately slaughtered. I am the more inclined to do it, because I have doubted whether the public are aware of the profit of their porkers.

She has had 66 pigs, the average sale of which has been $2,25 each, at or about a month old, amounting to	$148,50
In the fall of 1837, the Kennebec County Agricultural Society, gave me a premium on her of	2,00
And on a litter of pigs then with her, of	3,00
	$153,50
Slaughtered January 7th, 1839. Sold at 10 1-2 cents per pound—amount of sale	45,57
	$199,07

She was kept in a pen connected with a small yard, where she aided much in making manure. Her food in the winters, after the first, was raw Ruta Baga, with the wash or swill of a small family. In the summers, on the skimmed milk, and butter milk from one cow, and the refuse swill, grass, weeds, &c. But when she nursed her young she was expensive, being kept on barley, corn and pea meal, when she had her spring litters; but when she had her fall litters, pumpkins and apples were used with some meal. When I first began to fat her, apples, pumpkins and some barley and Indian meal were given, with small corn, and a variety of food; for swine like a variety of food as well as man and other animals; but for the last five weeks, I gave her mostly hard corn and water—four quarts a day.

As to the expense of keeping, every person knows as well as I do; after being told how she was kept. She was wintered three winters.

Query.—Would not three or four such swine give as much profit as a middling farm? and certainly they would add much, as to manuring one, since we raise so many roots. And we might raise many more pumpkins than we now do, for hogs and other stock, and I believe them worth (and here, I find other farmers agree with me,) as much, pound for pound, as potatoes. But they never should be raised among corn. The land on which they are placed should be made rich, and the seed sowed broad-cast, and harrowed in as we do wheat, barley or oats; say about the first of June; let there be plenty of seeds sowed, calculating some of the plants for the striped bugs. When hoed, let them be thinned out to the proper distances, and in the fall we shall see a *yellow* field. The pumpkins will be earlier, sweeter and better than those raised in the shade of corn; besides, the injury they do to corn is much. I have made this communication more prolix than I intended. Excuse me.

SAMUEL WOOD.

N. B. The sugar beet is a root which yields well, and it is thought to be better for swine, and other stock, than most other roots.—*Maine Farmer.*

CARROTS.

Mr. Samuel Blake, senior, who is one of the most thriving, if not the *fattest*, farmer in the town of Concord, and who has adopted the maxim, that there is no danger the farmer can plough, sow, plant or raise too much, informs us, that he raised this year on sixteen square rods of ground, one hundred and seven bushels of carrots, being at the rate of one thousand and seventy bushels to the acre. Carrots are a rich esculent for family use: they impart a fine flavor to various kinds of soup—they are good with fresh or preserved meats boiled or roasted, as is the common beet, turnep or parsnip; and they make as good a pye as the pumpkin or squash. The ingenious practical farmer could undoubtedly raise carrots with as much facility, as he could raise ruta baga. They may be sowed in ridges or rows from one to two feet apart. It would perhaps be preferable that the rows, especially if they shall not much exceed a foot apart should run north and south, that the ground may have the advantage of the sun. The ground should be

well manured—a strong and deep, but light soil should be selected, so that the root shall have a fair opportunity to enter the ground deep. Some are of opinion that carrots are not good for fattening cattle: we wish the experiment might be tried so as to leave no doubt, for, as at present advised, it is our belief that they are as good, if not better than potatoes. At all events, we think they will enable the milch cow to turn out more milk, than almost any other kind of vegetable.—*Farmers' Visitor.*

Pasturage for Hogs.

It is well known to every farmer that the hog is a grazing animal, bnt every one does not practice upon this knowledge as he might, or if at all, not to so good advantage as he might. Many turn them out in the road to pick the varied fare which they can find—to frighten the traveller's horse, or worry their neighbors by breaking into their enclosures.

The best grass for them, and one which they are extremely fond of, is clover. To pasture them therefore, to the best advantage, they should have a clover field to range in. A writer in the Domestic Encyclopedia, states that twenty-five swine were kept three months in a thrifty state by what clover grew on an acre of land cut and thrown over to them. This may be a more economical mode of furnishing them than it would be to let them run over and trample it down; but if twenty-five can be fed in this manner from an acre, certainly very nearly that number can be fed by turning them out to help themselves.

We were much pleased with a plan which a correspondent of the Cultivator proposes in one of the numbers of last year, which we will enlarge upon somewhat.

Suppose you have three acres of land which you can devote to swine. Divide into three fields of an acre each. Let the first be grass, the second wheat or other grain and the third roots, and thus alternate every year.

Perhaps the following diagram will illustrate it better.

1	2	3
1839—clover	1839—barley	1839—roots
'40—roots	'40—clover	'40—barley
'41—barley	'41—roots	'41—clover.

Thus every year the swine would be turned into a a new field of clover, where with whatever else you pleased to give them, they would fare exceedingly well during the summer, and the other two acres would be devoted to the growth of materials to fatten them with when the clover was gone.

Any other system of alternation of crops that would be more convenient might be followed, the main point being to have a new field of clover to put your swine into every year.—*Maine Farmer.*

From the Yankee Farmer.

Remedy for Sprains, Bruises, &c.

As it frequently happens that severe swellings occur from bruises, sprains, &c., I take the liberty to send you a recipe which has, in various instances, within my own sphere of observation, produced the most rapid and extraordinary relief. It was tried a few days ago, upon the foot of a genleman who was suffering agony from a violent sprain, and afforded instantaneous relief. I have used it with great success in dispelling fistulous swellings upon horses. It has never, with me, failed to reduce the swelling unless pus had formed. Its simplicity has caused it to be rejected by some, but, as it can do no harm, and as the materials are at hand, it can at least be tried. It is a mixture of one pint of soft soap; a pint of good vinegar; a handful of common salt, and a table spoonful of powdered nitre; put them into a common white basin, and bathe the part affected. I have never used it where the skin is abraided, as most probably violent pain would ensue. If, upon trial, you deem it worthy of publication, I shall be pleased to see it in the pages of the widely circulating Cultivator.

Virginia, Oct. 26, 1838. T. F. Nelson.

How to prevent Oxen hauling apart.

Some oxen have a very vexatious trick of hauling apart, when in the yoke. Mr. Francis Wingate, an experienced farmer at Hallowell, informs us that he prevented this in a yoke of oxen, by placing a small rope or line, a codline for instance, across from the horn of one ox to the horn of the other, thus bringing their heads in some degree together. The line should be tied around the tips, which, if they have balls on, may be kept there very easily, and should be proportioned in length to the length of the yoke.

If this simple remedy will obviate the trouble in all oxen addicted to this trick, it is worth knowing. If the rope be tied around the tips instead of around the roots of the horns, they will have less purchase upon it, and a smaller cord will answer the purpose.—*Maine Farmer.*

From the Maine Farmer.

Large Crop of Indian Corn.

Mr. Holmes—As others are speaking about crops, I will add mine also. We planted 1 1-4 acres of corn being two hundred square rods, and gathered 200 bushels of sound ears of corn, almost the whole fit for seed. We tried 2 or 3 of the basket full of ears which we called a bushel and they made over half a bushel shelled.

The land was part of a grass-field and ploughed in the fall of 1836. We sowed it with peas and oats in 1837, and that year 1838 manured it under the corn, the most of it with common barn manure—and some part with hog manure. The rows about 3 feet apart, hills 2 feet—five kernels in a hlil, which chiefly grew. One corner which had hog manure two rods wide and five long, was measured by the man who harvested the corn, he said there were 13 bushels of ears.

I have seen observations about seed corn bought at Boston being not so early as was expected. I will give you my experience. When I lived in the western part of this State I brought home a few ears of corn from Massachusetts which looked very nice, and planted it beside my other. It was at least ten days later ripening. Since I have lived here I brought some home from the western part of this State and found it also about as much later than seed which grew here. I again procured seed which grew at Mattanawcock; that was as much earlier as the other was later than the seed grown here.

If you want your corn to ripen early procure your seed from a more northern place.

B. Johnston.

Jackson, Me, Dec. 1838.

Watering Cattle in the Winter.

Perhaps it would excite the surprise of many of our readers, should we assert that cattle generally suffer more from thirst in winter, than during the heat of summer. Yet there is strong reason to believe that this is to a great extent the case. Cattle whose winter food consists entirely of hay, straw, and other dry materials, need a plentiful and frequent supply of pure fresh water. This many do not obtain, as nearly all running streams are covered with ice, as cattle are obliged to wander a considerable distance from the yard to the watering place, through deep snows or over a slippery path, exposed to the annoyance of dogs, or to be gored by other cattle, and rather than endure this, they often suffer much from a want of water. It has been ascertained that a bullock, who has water at command, will drink it eight times a day. It should always therefore be easy of access to cattle at all times; and not on a distant part of the farm, or in the open road, so that in order that cattle may help themselves to it, you are obliged to leave your gate open, or barn-yard bars down, and thus your yard is thronged with vagrant colts and other ill-bred animals, who take possession of whatever fodder they can lay their mouths upon, and pay no regard to the rights of *meum* and *tuum*. Dr. Anderson says that he knew a man who became very rich by being *great* in *little* matters, that is attending carefully to things which other men consider of too little consequence to claim their notice; and this man always made it a point to see that his cattle, particularly his milch cows, should have a constant supply of the purest water.—*Farmer's Calendar.*

The learned Blacksmith.—We published in our paper a few days ago, some account of a learned Blacksmith, who was acquainted with more than *fifty languages*, ancient, modern, and oriental. By an article in the Observer of Saturday, we learn that this Blacksmith is Mr. Elihu Burritt. He is a native of New Britain, in the town of Berlin, in this State, where he learned his trade. He has resided a year or two past at Worcester, Mass. principally on account of the excellent library at that place, of the American Antiquary Association. He now does regularly every day a journeyman's day's work at the locksmith business. Connecticut, and the village of New Britain in particular, has reason to be proud of such a son; and we trust the Young Men's Institute of Hartford will be so successful in the establishment of their Library, that they will offer a sufficient inducement for Mr. Burritt to return to his native State, and take up his residence among us. They cannot desire a nobler incentive to effort.—*Ct. Courant.*

American System extended.—An enterprising yankee has arrived at San Blas on the western coast of Mexico, with a cotton factory complete, including men, women, boys and girls.

Annual Agricultural Meetings.

☞ The New York State Agricultural Society, and the New York State Agricultural Convention, are both to meet in Albany, on the FIRST TUESDAY IN FEBRUARY next. The Society will meet in the City Hall, at 11 A. M.; the Convention in the Assembly Chamber, at 4 P. M.

Morus Multicaulis Cuttings.

THE subscriber can furnish 10,000 genuine Morus Multicauli Cuttings if applied to soon. E. H. MIX.
Avon, Livingston Co., N. Y. jan26 3m

Rochester Seed Store, 1839.

REYNOLDS & BATEHAM, the proprietors of this well known establishment, respectfully announce that they have again on hand a fine assortment of English and American SEEDS, of the latest growth, including all the most valuable and newly introduced articles of garden and field culture—Grain, Grass, Esculent Vegetable, Tree, Shrub, Herb and Flower Seeds. Also, a large collection of Garden Tools, Agricultural and Horticultural implements, Books, &c. and a splendid collection of Green House Plants.

The liberal and constantly increasing patronage which this establishment has received during the past four years, is a gratifying evidence that its usefulness is in a measure appreciated by an intelligent community, and that the efforts of the proprietors to give satisfaction have not been unsuccessful. Great pains are taken to have all articles sold at this establishment of the very best quality, and the proprietors hope, by unremitted exertion, together with their experience in the business, and facilities for growing and importing supplies, to merit the fullest confidence of the community, without which they do not ask or expect a continuation of its liberal patronage. Merchants and others supplied with superior Seeds either by weight at wholesale, or neatly put up in small papers for retailing, at prices which will afford them a handsome profit. Small Assortments will not be furnished on commission, but an agency is, or will be established in each of the principal villages in Western New York, where a full assortment will be left for sale.

A Catalogue of 42 pages may be had on application.

REYNOLDS & BATEHAM,
No. 3 & 5 Arcade Hall, Rochester, N. Y., Jan. 1st, 1839.

"THE BOOK OF FRUITS," by Robert Manning, of Salem, Mass. Also—
"The American Flower Garden Companion," by Edward Sayers, Boston—price 75 cents each. For sale at the Rochester Seed Store.
Jan. 20th, 1839. REYNOLDS & BATEHAM.

Morus Multicaulis.

FOR SALE.—A few hundred very fine *genuine* Morus multicaulis Trees *not trimmed*.
ALSO—10,000 cuttings of do. H. T. ROGERS, 17 Arcade,
Rochester, Jan. 7, 1839.—jan 5-tf or at the *Green-house*.

1000 Dollars Wanted.—A Hint.

THERE is more than one thousand dollars owing us from distant customers, mostly in small accounts, which have been standing from four months to four years. And lest some of our dilatory friends should think that we have forgotten them, or that their account is too small to be regarded, we would inform them that we have debts to pay too, and in order to extend our business and do justice to others, we must insist on more punctuality on the part of some of our customers. "Do you take?"

REYNOLDS & BATEHAM.
Rochester Seed Store, Jan. 1st, 1839 jan 5-2t

WM. PRINCE & SONS will make sales of trees and cuttings of the genuine Chinese Morus multicaulis, Morus Expansa, Alpina, Broussa, Canton, and other varieties, deliverable to the purchaser at such period in the spring as is convenient to them, and will enter into contracts accordingly. Prices and terms for the trees and cuttings will be forwarded to all who may apply for them by mail, as well as prices of Silk Worm Eggs, Mulberry seed, &c. The Multicaulis Trees are remarkably vigorous, and as we first imported the genuine tree, purchasers are sure of obtaining the true kind. It is from this cause and from the great attention paid by them, that the trees they have sold have given universal satisfaction.

Flushing, near New York, Dec. 26, 1838. jan 5-8t

For Sale.

A SMALL FARM, finely situated, and of uncommon productiveness, near a large village on the Erie Canal, and admirably adapted to the dairy business and marketing. For further particulars, and terms, inquire at this office. Dec. 29—tf

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.

April 15, 1838. SAMUEL MOULSON.

N. B. Cash will be paid for a few thousand two years old Apple trees.

Genuine Morus Multicaulis.

THE subscriber has still for sale, one thousand genuine Morus multicaulis, of thrifty growth and untrimmed. They are choice trees, selected for their size, and will afford a large quantity of cuttings. ASA ROWE.
Greece, October 27th, 1838.

Monroe Horticultural Garden and Nursery.

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Paeonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer
April 1, 1838. ASA ROWE.